

**Exercise 1** A table of data is given below.

$x$	$y$
0	2
1	5
2	8
5	

- (a) The rate of change from the top row to the second row is:  $\boxed{3}$ .
- (b) The rate of change from the top row to the second row is:  $\boxed{3}$ .
- (c) If this rate of change is maintained, whenever the  $x$ -value of a data point increases by 1, the  $y$ -value of the data point must increase by  $\boxed{3}$ .
- (d) If this rate of change is maintained, whenever the  $x$ -value of a data point increases by 3, the  $y$ -value of the data point must increase by  $\boxed{9}$ .
- (e) If this rate of change is maintained, the  $x$ -value 5 corresponds to the  $y$ -value  $\boxed{17}$ .
- (f) An equation that describes the pattern in the table is  $y = \boxed{3x + 2}$ .
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